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FORM

May 10, 2001

PTO/SB/21 (04-04)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. **Application Number** 09/852,386

Filing Date

. 514.01		First Named Inventor	Steven L. Roberds		
(to be used for all correspondence after initia	ıl filing)	Art Unit	1646		
		Examiner Name	Michael D. Pak		
Total Number of Pages in This Submission		Attorney Docket Number	PHRM0016-100/00133.US1		
	ENCLO	SURES (check all that apply)			
⊠ Fee Transmittal Form	☐ Drawin	ng(s)	After Allowance Communication to Technology Center (TC)		
Fee Attached	Licens	ing-related Papers	Appeal Communication to Board of Appeals and Interferences		
Amendment / Reply	Petition	n	Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)		
After Final		n to Convert to a ional Application	Proprietary Information		
Affidavits/declaration(s)		of Attorney, Revocation le of Correspondence Address	Status Letter		
Extension of Time Request	☐ Terminal Disclaimer		Other Enclosure(s) (please identify below):		
Express Abandonment Request		st for Refund umber of CD(s)	1 ref: BANG et al., "TREK-2, a New Member of the mechanosensitive Tandem-pore K+ Channel Family"J. Biol. Chem. 275:17412- 17419 (2000), Postcard Receipt		
Information Disclosure Statement					
Certified Copy of Priority Document(s)	Rema	rks			
Response to Missing Parts/ Incomplete Application					
Response to Missing Parts under 37 CFR 1.52 or 1.53					
SIGNAT	TURE OF	APPLICANT, ATTORNEY, OI	R AGENT		
Firm or Individual name Gwilym J.O. Attwell, Regis. No. 45, 449					
Signature					
Date () tong 29, 2004					
CERTIFICATE OF TRANSMISSION/MAILING					
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.					

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidential by soverned by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form-end/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date

June 29, 2004

Complete (if applicable)

215.665.6904

June 29, 2004

Telephone

PTO/SB/17 (10-03)
Approved for use through 07/31/2006. OMB 0651-0032
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FEE TRANSMITTAL for FY 2004

ctive 10/01/2003. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

SUBMITTED BY

Name (Print/Type)

Signature

(\$)	180
(P)	101

Complete if Known				
Application Number	09/852,386			
Filing Date	May 10, 2001			
First Named Inventor	Steven L. Roberds			
Examiner Name	Michael D. Pak			
Art Unit	1646			
Attorney Docket No.	PHRM0016-100/130917			

METHOD OF PAYMENT (check all that apply)			FEE CALCULATION (continued)						
☐ Check ☐ Credit card ☐ Money ☐ Other ☐ None			3. ADDITIONAL FEES						
Order Deposit Account:			Large Entity Small Entity						
Deposit				Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
Account	50-1275			1051	130	2051	65	Surcharge - late filing fee or oath	
Number				1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
Deposit	1			1053	130	1053	130	Non-English specification	
Account Name	Cozen O'Connor			1812	2,520	1812	2,520	For filing a request for reexamination	
The Director is authorized to: (check all that apply)					920*	1804	920*	Requesting publication of SIR prior to Examiner action	
🖾 Charge any add	ditional fee(s) duri		n	1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
to the above-identi		xcept for the filing fee		1251	110	2251	55	Extension for reply within first month	
to the above-identi	<u> </u>	CULATION		1252	420	2252	210	Extension for reply within second month	
1. BASIC FI	LING FEE			1253	950	2253	475	Extension for reply within third month	
	Small Entity ee Fee Fe	ee Description		1254	1,480	2254	740	Extension for reply within fourth month	
	ode (\$)	Fee Paid		1255	2,010	2255	1,005	Extension for reply within fifth month	
1001 770 2	001 385 UI	tility filing fee		1401	330	2401	165	Notice of Appeal	
1002 340 2	002 170 De	esign filing fee		1402	330	2402	165	Filing a brief in support of an appeal	
1003 530 2	003 265 PI	ant filing fee		1403	290	2403	145	Request for oral hearing	
		eissue filing fee	4	1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1000 100 12	000 00 11	Ovisional minigree		1452	110	2452	55	Petition to revive – unavoidable	
	SUBTOTAL (1) (\$) 0		1453	1,330	2453	665	Petition to revive - unintentional	
0 5755				1501	1,330	2501	665	Utility issue fee (or reissue)	
2. EXTRA CLA		UTILITY AND REISSUE		1502	480	2502	240	Design issue fee	
		Extra Fee from Fee Claims below Paid		1503	640	2503	320	Plant issue fee	
Total Claims	20 ** =			1460	130	1460	130	Petitions to the Commissioner	
Independent	5 F		₹ .	1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)	
Claims	-3** = 0) X = 0		1806	180	1806	180	Submission of Information Disclosure Stmt	180
Multiple Dependent Large Entity Small Entity			8021	40	8021	40	Recording each patent assignment per property (times number of properties)		
Fee Fee Code (\$)	Fee Fee Code (\$)	Fee Description		1809	770	2809	385	Filing a submission after final rejection (37 CFR § 1.129(a))	
1202 18	2202 9	Claims in excess of 20		1810	770	2810	385	For each additional invention to be	
1201 86	2201 43	Independent claims in excess of 3			1			examined (37 CFR § 1.129(b))	
1203 290	2203 145	Multiple dependent claim, if not pa	id	1801	770	2801	385	Request for Continued Examination (RCE)	
1204 86	2204 43	** Reissue independent claims ov original patent	er	1802	900	1802	900	Request for expedited examination	
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent				of a design application					
SUBTOTAL (2) (\$) 0				Other fee (specify)					
			*Redu	ced by Ba	asic Filin	Fee P	aid SUBTOTAL (3) (\$) 18	0	
**or number previously paid, if greater, For Reissues, see above									

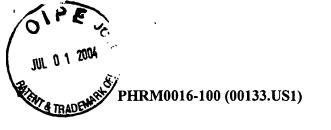
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Registration No.

(Attorney/Agent)

This collection of information by fequired by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Paternark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

45.449



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Steven L. Roberds et al.

Serial No.: 09/852,386 Group Art Unit: 1646

Filing Date: May 10, 2001 Examiner: Michael D. Pak

For: HUMAN ION CHANNELS

DATE OF DEPOSIT: June 29, 2004

I HEREBY CERTIFY THAT THIS PAPER IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL, POSTAGE PREPAID, ON THE DATE INDICATED ABOVE AND IS ADDRESSED TO THE COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA/VA 2243-1450

TYPED NAME: Gwilym J.O. Attwell REGISTRATION NO: 45,449

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §§ 1.56 and in accordance with 37 C.F.R. §§ 1.97 and 1.98, information relating to the above-identified application is hereby disclosed, the Examiner in charge of the above-identified application is requested to consider and make of record the reference listed on the PTO Form SB/08B, formerly known as PTO Form 1449 submitted herewith.

Inclusion of the information submitted herewith is not to be construed as an admission that the information is material as that term is defined in 37 C.F.R. § 1.56(b).

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made.

07/06/2004 AADOFO1 00000136 501275 09852386 01 FC:1806 180.00 DA

	This	Information Disclosure Statement is being filed:			
	within three months of the filing date of the patent application.				
	within three months of the date of entry into the national stage as set forth in 37 C.F.R. § 1.491 of the international application.				
	befor	e the mailing date of a first Office Action on the merits.			
\boxtimes	maili	after the mailing date of a first Office Action on the merits, but before the mailing date of a Final Office Action under 37 C.F.R. § 1.116 or a Notice o Allowance under 37 C.F.R. § 1.311, and accordingly is accompanied by:			
		the Statement under 37 C.F.R. § 1.97(e) (see "Statement" below);			
		or			
	\boxtimes	the Fee of \$180.00 set forth in 37 C.F.R. § 1.17(p); or			
		No fee is owed by the applicant(s).			
	In accordance with 37 C.F.R. § 1.129(a), this Information Disclosure Statement is being filed in connection with \square the first or \square second After Final Submission, and accordingly is accompanied by the Statement under 37 C.F.R. § 1.97(e) (see "Statement" below) and the fee of \$180.00 as set forth in 37 C.F.R. § 1.17(p), is attached.				
	after the mailing date of a Final Office Action under 37 C.F.R. § 1.116 or a Notice of Allowance under 37 C.F.R. § 1.311, but before, or simultaneously with, the payment of the Issue Fee, and accordingly is accompanied by the Statement under 37 C.F.R. § 1.97(e), a Petition requesting consideration of the Information Disclosure Statement and the Petition Fee of \$130.00 set forth in 37 C.F.R. § 1.17(i)(1) (see "Statement," "Petition," and "Fees" below).				
\boxtimes	Copies of references listed on the attached PTO Form SB/08B, formerly known as PTO Form 1449 are enclosed herewith				
	EXC	EPT THAT:			
		In view of the voluminous nature of references @@, and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.			
		In accordance with 37 C.F.R. § 1.98(d), copies of the following references listed on the attached PTO Form SB/08A and PTO Form SB/08B, formerly known as PTO Form 1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. § 120 have been made in the instant application.			

		Copies of references listed on the attached PTO Form SB/08A and PTO Form SB/08B, formerly known as PTO Form 1449 were previously cited by or submitted to the U.S. Patent and Trademark Office in parent application Serial No filed on If any of the foregoing publications are not available to the Examiner, Applicant will endeavor to supply copies at the Examiner's request.
Stater	nent ur	nder 37 C.F.R. § 1.97(e)
	in the foreig	ndersigned attorney hereby states that each item information contained Information Disclosure Statement was cited in a communication from a n patent office in a counterpart foreign patent application not more than months prior to the filing of the Information Disclosure Statement.
Petitio	on	
	listed SB/08	cant(s) hereby petitions the Commissioner to consider the references in this Information Disclosure Statement, on the enclosed PTO Form A and PTO Form SB/08B, formerly known as PTO Form 1449, and the nation of the above-identified patent application.
Fees		
	No Fe	e is owed by the applicant(s).
\boxtimes		information Disclosure Statement Fee of \$180.00 under 37 C.F.R. (p) is enclosed herewith.
	The Po	etition Fee of \$130.00 under 37 C.F.R. § 1.17(i)(1) is enclosed herewith.
Metho	od of Pa	ayment of Fees
	Attach submi	ned is a check in the amount of \$ This form is tted in duplicate.
\boxtimes	_	e Deposit Account No. 50-1275 in the amount of \$180.00. This form is tted in duplicate.
\boxtimes	Please	charge any deficiency or credit any overpayment to Deposit Account 75.

No fee or Statement is required under 37 C.F.R. § 1.97(b).

Respectfully submitted,

Dated: June 29, 2004

Gwilyni J.Ó. Attwell Registration No. 45,449

COZEN O'CONNOR, P.C.

1900 Market Street Philadelphia, PA 19103 Telephone: 215.665.6904

Facsimile: 215.701.2004

JUL D 1 2004

PTO/SB/08b(08-03) Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449B/PTO Complete if Known Application Number 09/852,386 INFORMATION DISCLOSURE Filing Date May 10, 2001 STATEMENT BY APPLICANT First Named Inventor Steven L. Roberds Art Unit 1646 (Use as many sheets as necessary) Examiner Name Michael D. Pak Sheet Attorney Docket Number PHRM0016-100/00133.US1

Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 2
		BANG et al., "TREK-2, a New Member of the mechanosensitive Tandem-pore K+ Channel Family"J. Biol. Chem. 275:17412-17419 (2000),	-
			<u> </u>

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.